

Amendments to the Claims

1. (Currently Amended) ~~A monoclonal~~ An antibody specifically recognizing proliferative human hepatocytes that exist in a hepatocyte population isolated from an adult human liver and have clonal proliferative ability and differentiation ability to functional hepatocytes.

2. (Currently amended) The ~~monoclonal~~ antibody of claim 1, which is produced by hybridoma cell, Mouse-Mouse hybridoma K8223 (FERM BP-8334).

3. (Currently amended) A hybridoma cell producing the ~~monoclonal~~ antibody of claim 1.

4. (Original) The hybridoma cell of claim 3, which is Mouse-Mouse hybridoma K8223 (FERM BP-8334).

5. (Currently Amended) A method for isolating proliferative human hepatocytes, which comprises separating ~~isolating~~ cells recognized by the ~~monoclonal~~ antibody of claim 1 or 2, from a human hepatocyte population.

6. (Original) Proliferative human hepatocytes separated by the method of claim 5.

7. (Original) A method for inducing the differentiation of the proliferative human hepatocytes of claim 6, which comprises performing at least one of the following means:

- (a) spheroid culture of the proliferative human hepatocytes; and
- (b) transfer of hepatic nuclear factor 4 (HNF4) gene into the proliferative human hepatocytes.

8. (Currently amended) Functional human ~~hepatoocytes~~ hepatocytes induced to differentiate by the method of claim 7.

9. (Original) A cell kit comprising the functional human hepatocytes of claim 8.

10. (Original) A hybrid artificial liver packed with the functional human hepatocytes of claim 9.

11. (New) A method for isolating proliferative human hepatocytes, which comprises separating cells recognized by the antibody of claim 2, from a human hepatocyte population.

12. (New) Proliferative human hepatocytes separated by the method of claim 11.

13. (New) A method for inducing the differentiation of the proliferative human hepatocytes of claim 12, which comprises performing at least one of the following means:

- (a) spheroid culture of the proliferative human hepatocytes; and
- (b) transfer of hepatic nuclear factor 4 (HNF4) gene into the proliferative human hepatocytes.

14. (New) Functional human hepatocytes induced to differentiate by the method of claim 13.

15. (New) A cell kit comprising the functional human hepatocytes of claim 14.

16. (New) A hybrid artificial liver packed with the functional human hepatocytes of claim 15.